

SubC2  
B2  
3. **(Amended)** Method according to claim 1, further characterized in that said probes are chosen from the following list: SEQ ID NO: 7 to SEQ ID NO: 477, SEQ ID NO: 510 to SEQ ID NO: 519 or the complement of said probes.

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5. **(Amended)** Method according to claim 1 further characterized in that:  
step b) comprises amplifying a fragment of the protease gene with at least one 5'-primer specifically hybridizing to a target sequence located at nucleotide position 210 to 260 of the protease gene, in combination with at least one suitable 3'-primer, and  
step c) comprises hybridizing the polynucleic acids of step a) or b) with at least two of the probes specifically hybridizing to a target sequence or its complement, comprising codon 90.

6. **(Amended)** Method according to claim 1 further characterized in that:  
step b) comprises amplifying a fragment of the protease gene with at least one 3'-primer specifically hybridizing to a target sequence located at nucleotide position 253 (codon 85) to position 300, in combination with at least one suitable 5'-primer, and  
step c) comprises hybridizing the polynucleic acids of step a) or b) with at least two of the probes specifically hybridizing to a target sequence or its complement, comprising any of codons 30, 46, 48, 50, 52, 54, 82 and 84.

B4  
9. **(Amended)** A probe as defined in claim 1 for use in a method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample, comprising SEQ ID NO: 267.

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12. **(Amended)** A diagnostic kit enabling a method for determining the susceptibility to antiviral drugs of HIV viruses in a biological sample, with said kit comprising:  
a) when appropriate, a means for releasing, isolating or concentrating the polynucleic acids present in said sample;  
b) when appropriate, at least one of the primers comprising SEQ ID NO: 3, SEQ ID NO: 503, SEQ ID NO: 504, SEQ ID NO: 4, SEQ ID NO: 506, SEQ ID NO: 507, SEQ ID NO: 508 or SEQ ID NO: 509; or

- Sub ch
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- a 5'-primer specifically hybridizing to a target sequence located at nucleotide position 210 to 260 of the protease gene; or
- a 3'-primer specifically hybridizing to a target sequence located at nucleotide position 253 (codon 85) to 300 of the protease gene;
- c) at least two probes that specifically and simultaneously hybridize to a target sequence of HIV protease gene, said target sequence selected from the group consisting of codon 30, codon 46 and/or 48, codon 50, codon 54, codon 82 and/or 84, codon 90, fixed to a solid support, wherein said probes are capable of simultaneously hybridizing to their respective targets under appropriate hybridization and wash conditions;
- d) a hybridization buffer, or components necessary for producing said buffer;
- e) a wash solution, or components necessary for producing said solution;
- f) when appropriate, a means for detecting the hybrids resulting from the preceding hybridization;
- g) when appropriate, a means for attaching said probe to a solid support.

Please add new claims 13 - 27 as follows:

13. (New) The method according to claim 1, wherein at least two probes are provided for hybridizing to each of the target sequences of codon 30; codon 46 and/or 48; codon 50; codon 54; codon 82 and/or 84; or codon 90.
14. (New) The method according to claim 13, wherein said probes are between 10 and 25 nucleotides in length and have a T<sub>m</sub> between 36°C and 44°C.
15. (New) The method according to claim 13, wherein said probes are capable of hybridizing to their respective target sequences under stringent hybridization conditions carried out at 39°C.
- Bb

16. (New) The method according to claim 15, wherein said probes are selected from the group consisting of SEQ ID NO: 7 to SEQ ID NO: 477, SEQ ID NO: 510 to SEQ ID NO: 519 and the complements thereof.

- Sub 5 17. (New) The kit according to claim 12, wherein at least two probes are provided for hybridizing to each of the target sequences of codon 30; codon 46 and/or 48; codon 50; codon 54; codon 82 and/or 84; or codon 90.

18. (New) The kit according to claim 17, wherein said probes are between 10 and 25 nucleotides in length and have a Tm between 36°C and 44°C.

19. (New) The kit according to claim 17, wherein said probes are selected from the group consisting of SEQ ID NO: 7 to SEQ ID NO: 477, SEQ ID NO: 510 to SEQ ID NO: 519 and the complements thereof.

- Sub 6  
B6 20. (New) A solid support for use in the method of claim 1, said support having two or more probes immobilized thereon, wherein said probes are capable of specifically and simultaneously hybridizing to a target sequence of the HIV protease gene, said target sequence selected from the group consisting of codon 30, codon 46 and/or 48, codon 50, codon 54, codon 82 and/or 84, codon 90 and the complement thereof.

21. (New) The solid support of claim 20 wherein the probes are selected from the group consisting of SEQ ID NOs. 7-477.

22. (New) The solid support of claim 20 wherein at least two probes are specific for codon 82.

- Sub C7 23. (New) The solid support of claim 22 wherein the probes are selected from the group consisting of SEQ ID. NOs. 228-357.

- Sub 17
24. (New) The solid support of claim 22 comprising SEQ ID NO. 267 and SEQ ID NO. 354.
25. (New) The solid support of claim 20 comprising at least two probes for each target sequence of codon 30, codon 46 and/or 48, codon 50, codon 54, codon 82 and/or 84, and codon 90.
26. (New) A composition comprising at least two probes fixed to a solid support for use in the method of claim 1, wherein said probes are capable of specifically and simultaneously hybridizing to a target sequence of the HIV protease gene, said target sequence selected from the group consisting of codon 30, codon 46 and/or 48, codon 50, codon 54, codon 82 and/or 84, codon 90 and the complement thereof.
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27. (New) The composition of claim 26, wherein the probes are further provided with a poly-T-tail.

### REMARKS

#### **I. Status of the claims**

Claims 2, 10 and 11 are canceled.

Claims 1, 3, 5, 6, 9 and 12 are amended and claims 13-27 are newly added.

Claims 1, 3-9 and 12-27 are currently pending.

#### **II. Rationale and support for the amendment of the claims**

Claims 10 and 11 are canceled solely in response to the currently pending Restriction Requirement, as not being directed to the elected invention. Support for the amendment of claims 1, 3, 5, 6 and 12 is found in the claims as originally filed, in particular claim 2, and at page 7, lines 7-10 and page 8, lines 34-35. Claim 9 has been amended in view of the restriction